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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/509,482	09/15/2000	Linda Anne Crofts	1871-130	9624
24353	7590	10/06/2004	EXAMINER	
BOZICEVIC, FIELD & FRANCIS LLP			ULM, JOHN D	
1900 UNIVERSITY AVE			ART UNIT	
SUITE 200			PAPER NUMBER	
EAST PALO ALTO, CA 94303			1646	

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/509,482	<b>Applicant(s)</b> CROFTS ET AL.	
	<b>Examiner</b> John D. Ulm	<b>Art Unit</b> 1646	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 July 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 9-14, 19-24, 27, 28 and 30-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4, 9-12, 20-24, 27, 37-40, 43 and 45-48 is/are allowed.
- 6) ☒ Claim(s) 13, 14, 19, 28, 30-36, 41, 42 and 44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/28/04</u> . | 6) <input type="checkbox"/> Other: _____  |

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1) Claims 1 to 4, 9 to 14, 19 to 24, 27, 28 and 30 to 48 are pending in the instant application. Claims 13, 14, 19 and 20 have been amended and claims 41 to 48 have been added as requested by Applicant in the correspondence filed 09 July of 2004.

2) Any objection or rejection of record that is not expressly repeated in this action has been overcome by Applicant's response and withdrawn.

3) The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4) A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09 July of 2004 has been entered.

5) Claims 1 to 4, 9 to 12, 20 to 24, 27, 37 to 40, 43 and 45 to 48 are allowable as written.

6) Claims 13, 14, 35 and 36 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. These claims encompass subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. These claims are incomplete and, therefore, not enabled because they do not require an isolated polynucleotide encoding

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the polypeptide that is produced by the claimed method. The instant specification does not provide the guidance needed to produce a specific polypeptide by culturing a transformed cell lacking a polynucleotide encoding that polypeptide. Applicant is advised that a "complement thereto", as used in the instant claims, does not encode a polypeptide.

7) Claims 28 and 30 to 36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 28 is vague and indefinite because it is unclear if the limitation "or a complement thereof" is referring to a complement of the "isolated polynucleotide molecule" or a complement of the "nucleotide sequence encoding". It is unclear if every embodiment of isolated polynucleotide molecule encompassed by this claim is required to encode human vitamin D receptor isoform. Claims 30 to 36 are vague and indefinite in so far as they depend from claim 28 for this element.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8) Claims 19, 41, 42 and 44 are rejected under 35 U.S.C. 102(b) as being anticipated by the Cretin et al. publication (Gene 99:87-94, 1991). These claims encompass a polynucleotide probe comprising at least ten or more consecutive nucleotides from a nucleotide sequence encoding SEQ ID NO:21. The limitation

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"probe" is nothing more than a statement of intended use, which can be applied to any isolated polynucleotide because any isolated polynucleotide can be employed as a polynucleotide probe. These claims encompass any isolated polynucleotide encoding three or more consecutive amino acid residues from SEQ ID NO:21. Figure 6 on page 91 of the Cretin et al. publication described the amino acid sequence encoded by an isolated cDNA identified therein as CP21. Amino acid residues 479 to 451 of that sequence (DWL) correspond to residues 10 to 12 of SEQ ID NO:21 of the instant application. Because each amino acid residue is encoded by three nucleotides, a nucleic acid encoding three contiguous amino acids from SEQ ID NO:21 would "comprise" nine consecutive nucleotides from a nucleotide sequence encoding SEQ ID NO:21. Further, the sequence DWL in SEQ ID NO:21 is preceded by serine (SDWL). The third nucleotide of a serine codon can be any one of the four nucleotide bases. Therefore, the cDNA described as CPR1 by the Cretin et al. publication comprised as least ten consecutive nucleotides from a nucleotide sequence encoding SEQ ID NO:21.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9) Claims 19, 41, 42 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Cretin et al. publication (Gene 99:87-94, 1991). As indicated above, the Cretin et al. publication described a cDNA comprising as least ten consecutive nucleotides from a nucleotide sequence encoding SEQ ID NO:21. Cretin et

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al. did not actually employ that cDNA as a probe. Figure 1 of Cretin et al. shows that it was routine in the art at that time to employ a cDNA, such as the CPR1 cDNA presented in Figure 6 of that publication, as a nucleic acid probe to detect related nucleic acids in a sample. To have employed the CPR1 cDNA of Cretin et al. as a polynucleotide probe to detect related nucleic acids in a sample would have been *prima facie* obvious to one of ordinary skill in the art of molecular biology in view of this reference.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John D. Ulm whose telephone number is (571) 272-0880. The examiner can normally be reached on 9:00AM to 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kunz Gary can be reached on (571) 272-0887. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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